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U.S. Serial No. 10/053,156 (Attorney Dkt: HALB:001)
Art Unit: 1724; Examiner HRUSKOCI, PETER A.

IN THE CLAIMS:

Please amend claims 1, 3, and 4 and please add new claims 17 - 23 to read as indicated below.

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I claim:

1. (Presently amended) A method of removing sulphide ion from a fluid having a pH in excess of about 9 comprising:
 - adding a ferrous gluconate chelating agent to said fluid in sufficient quantity to form iron sulphide with the sulphide ion; and
 - mixing the chelate chelating agent with the fluid and forming iron sulphide.
2. (Original) The method of claim 1 further comprising maintaining the ferrous gluconate at a level to maintain the sulphide concentration below a certain desired level.
3. (Presently amended) The method of claim 1 wherein the quantity of gluconate added to said fluid exceeds the quantity needed to chelate react with all of the ~~iron~~ iron sulphide ion in said fluid.
4. (Presently amended) A method of reducing the hydrogen sulphide concentration in a polymer based drilling fluid comprising:
 - adding a ferrous gluconate compound to said fluid; and
 - allowing said ferrous gluconate to react with said hydrogen sulphide such that sulphide is precipitated.
5. (Original) The method of claim 4 wherein said sulphide is precipitated as iron sulphide.
6. (Original) The method of claim 4 wherein said drilling fluid has a pH greater than 9.0.
7. (Original) The method of claim 4 wherein said drilling fluid has a pH ranging from about 11 to about 12.
8. (Withdrawn).
9. (Withdrawn).
10. (Withdrawn).
11. (Withdrawn).

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12. (Withdrawn).
13. (Withdrawn).
14. (Withdrawn).
15. (Withdrawn).
16. (Withdrawn).
17. (New) A method of drilling a borehole in a subterranean formation containing hydrogen sulphide, said method comprising employing a polymer based drilling fluid having a pH greater than 9.0 and adding to the drilling fluid a quantity of ferrous gluconate sufficient to react with hydrogen sulphide entering said fluid from said formation such that sulphide is precipitated.
18. (New) The method of claim 17 wherein said drilling fluid has a pH in the range of about 11 to about 12.
19. (New) A method of drilling a borehole employing a polymer based drilling fluid having a pH greater than 9, said method comprising adding to the drilling fluid an additive comprising an iron (II) based hydrogen sulphide scavenger chelated with a gluconate chelating agent which provides a stable complex with said iron at said pH greater than 9.
20. (New) The method of claim 19 wherein said drilling fluid additive provides a stable complex with said iron at a pH of at least about 11.5.
21. (New) The method of claim 20 wherein said drilling fluid additive provides said stable complex at subterranean formation temperatures.
22. (New) The method of claim 20 wherein said drilling fluid additive provides said stable complex at temperatures ranging from ambient temperature to over 300°F.

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23. (New) The method of claim 19 wherein said drilling fluid additive precipitates sulphide without damaging the rheological properties of the drilling fluid.